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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,879	03/30/2004	Bin Wei	129545-1	2878
6147	7590	02/01/2010		
GENERAL ELECTRIC COMPANY			EXAMINER	
GLOBAL RESEARCH			POPOVICS, ROBERT J	
ONE RESEARCH CIRCLE				
PATENT DOCKET RM. BLDG. K1-4A59			ART UNIT	PAPER NUMBER
NISKAYUNA, NY 12309			1797	
		NOTIFICATION DATE		DELIVERY MODE
		02/01/2010		ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ldocket@crd.ge.com  
rosssr@crd.ge.com  
parkskl@crd.ge.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/708,879	<b>Applicant(s)</b> WEI ET AL.
	<b>Examiner</b> /Robert James Popovics/	<b>Art Unit</b> 1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 11 February 2009.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 1,3-13 and 15-24 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,3-13 and 15-24 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

In view of the **Supplemental Appeal Brief** filed on **November 5, 2008**, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

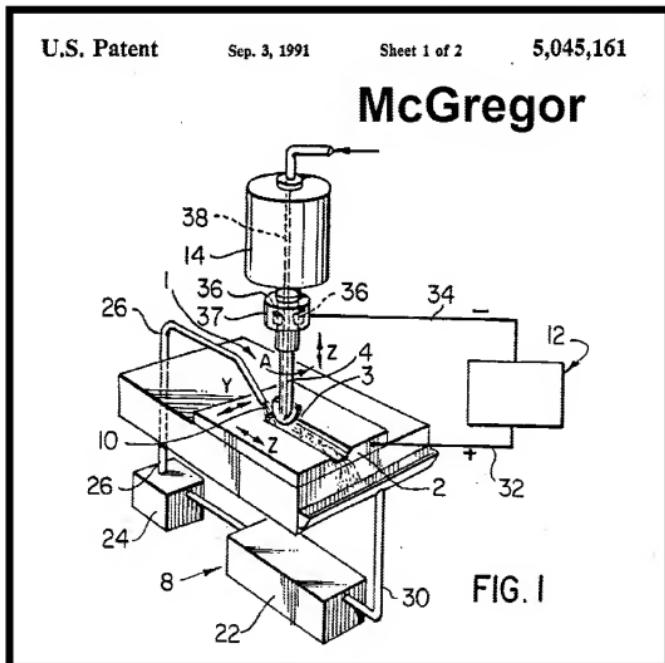
A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

**/Duane Smith/  
Supervisory Patent Examiner  
Art Unit 1797**

***Claim Rejections - 35 USC § 103***

Claims 1,3-13 and 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of **Abiko (US 5,281,788)** and/or **McGregor (US 5,045,161)** and/or **Hartwig (US 5,177,335)** and/or **Tanaka (US 5,739,497)** and/or **AAPA (Applicants' Admitted Prior Art)**.

**McGregor, Tanaka and Abiko** disclose electroerosion systems substantially as claimed.



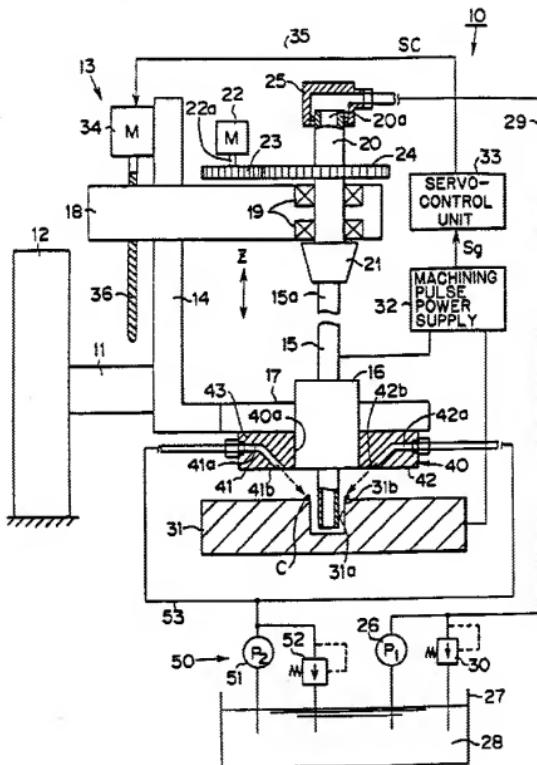
U.S. Patent

Jan. 25, 1994

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5,281,788

**FIG. 1**



U.S. Patent

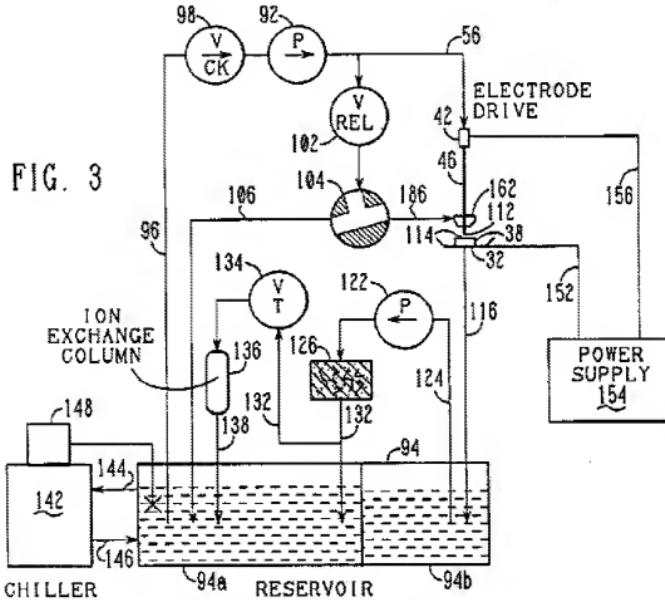
Apr. 14, 1998

Sheet 2 of 2

5,739,497

Tanaka

FIG. 3



**AAPA** teaches that it is known to flush metal chips from the bottom of the work tank and remove them with at least one filter.

# AAPA

[0003] Electroerosion machining is also non-contact or minimum-contact machining process that can quickly shape any electrically conductive material regardless of the hardness or toughness of the material. In the electroerosion process, a substantial amount of material is removed from the metal workpiece. Metal chips are deposited at the bottom of a working tank and subsequently rolled by high pressure flushing. Without adequate filtration, these rolled chips can be pumped back into the machining zone and generate secondary discharge or arcing between the electrode and the workpiece, thereby affecting process stability and surface integrity as well as geometry accuracy.

[0004] At present, existing EDM-type filtration and flushing systems that are adopted for electroerosion machines do not have sufficient filtration systems associated therewith.

Claims 1,3-13 and 15-24 essentially differ from the prior art as defined by **McGregor, Abiko and AAPA** by specifying a second filter. **McGregor** discloses **flushing filtration** at column 4, lines 5-10. **Tanaka** discloses a two-stage filtration scheme employing units **126** and **136**. **Hartwig** clearly discloses a **two-stage filtration process** employing **prefilter 28** in addition to the flushing filter conventionally employed with such units.

U.S. Patent

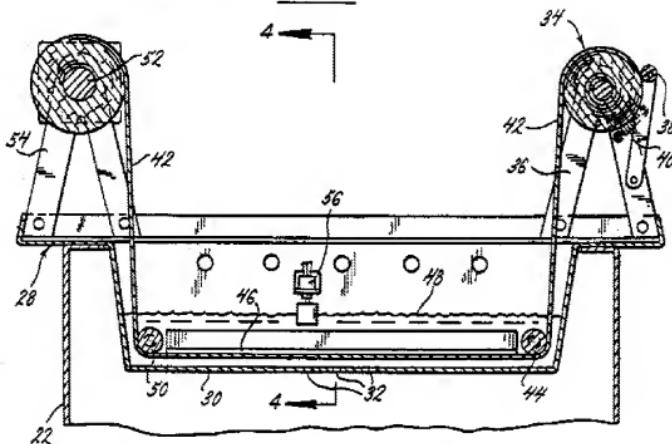
Jan. 5, 1993

Sheet 2 of 2

5,177,335

# Hartwig

FIG. 3



In view of the prefilter teaching of Hartwig, it would have been obvious to those skilled in the art at the time the invention was made to employ a two-stage filtration scheme in known systems of the prior art as exemplified and encompassed by McGregor, Abiko, Tanaka and AAPA in order to reduce down time associated with conventional filtration schemes as expressly taught by Hartwig.

***Specification***

The disclosure is objected to because of the following informalities: at paragraph “[0004]” should “adopted” be –adapted–?

Appropriate correction is required.

***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

This action is **NOT FINAL**.

Any inquiry concerning this communication should be directed to /Robert James Popovics/ at telephone number (571) 272-1164.

**/Robert James Popovics/  
Primary Examiner  
Art Unit 1797**